

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference JCB/4319 WO	FOR FURTHER ACTION		see Form PCT/ISA/220 as well as, where applicable, Item 5 below.
International application No: PCT/GB2004/001491	International filing date (day/month/year) 05/04/2004	(Earliest) Priority Date (day/month/year) 07/04/2003	
Applicant LUXFER GROUP LIMITED			

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 4 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box II).

3. ☐ **Unity of invention is lacking** (see Box III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☐ the text is approved as submitted by the applicant.

☒ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regards to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 6d, 6f

☐ as suggested by the applicant.

☒ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

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International application No.

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Box No. IV Text of the abstract (Continuation of Item 5 of the first sheet)

A method of forming and a blank therefor, in which the blank (1) comprises a parent body (2) and at least one insert (3), at least one of which is made of a material which possesses superplastic properties. The insert (3) is joined to the parent body (2) by friction stir welding. The primary purpose of the invention is to provide a blank for a forming process during which some parts of the blank are required to deform to an extent which requires superplastic properties, whereas the remaining parts of the blank are deformed to a lesser extent.

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International Application No

PCT/GB2004/001491

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B23K20/12 B21D26/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B23K B21D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1 245 325 A (BOEING CO) 2 October 2002 (2002-10-02) paragraphs '0002!', '0010!; figures 5,7	1,2,6-27
A	-----	3-5,28
X	WO 02/070186 A (HAMA YASUYUKI ; AKIYAMA HIROSHI (JP); NARITA MASAYUKI (JP); HASHIMOTO) 12 September 2002 (2002-09-12) figures 11-13	1-5,7-28
A	& US 2004/074949 A1 (HAMA YASUYUKI ET AL) 22 Apr11 2004 (2004-04-22) paragraphs '0097! - '0103!; figures 11-13	6
X	PATENT ABSTRACTS OF JAPAN vol. 1999, no. 05, 31 May 1999 (1999-05-31) & JP 11 047859 A (MITSUBISHI HEAVY IND LTD), 23 February 1999 (1999-02-23) abstract; figures	1-4, 6-10, 12-26

☐ Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

& document member of the same patent family

Date of the actual completion of the international search

21 July 2004

Date of mailing of the international search report

28/07/2004

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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Patent document cited in search report		Publication date		Patent family member(s)	Publication date
EP 1245325	A	02-10-2002	US	2002142183 A1	03-10-2002
			EP	1245325 A1	02-10-2002
			US	2003071107 A1	17-04-2003
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			JP	2002273580 A	25-09-2002
			DE	10296452 T0	04-03-2004
			WO	02070186 A1	12-09-2002
			US	2004074949 A1	22-04-2004
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			JP	2002273580 A	25-09-2002
			DE	10296452 T0	04-03-2004
			WO	02070186 A1	12-09-2002
JP 11047859	A	23-02-1999	NONE		